



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

**D206-667-207BL**  
**Job Sheet 189820**



**Part No:** D206-667-207BL

**Job Qty:** 1 pcs

**Part Name:** Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue



**Part Weight:** 0 lbs

**Status:** New

**Priority:** Medium

**Job Created:** 1/30/19

**Job Tracking No:**

**Due Date:** 3/1/19

**Created By:** Jesse White

**Type:** SOLD

**Description:**

**Ship Via:**

### Bill of Materials

### Job Routing

| Op No | Operation             | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off    |
|-------|-----------------------|-------|------------|----------|-----------|---------|-----------------------|-----------|-------------|
|       |                       |       |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier | Lead Time |             |
| 110   | Crosstubes - Bend - 1 | 1 pcs | 3/1/19     | 3/1/19   | 0.00      | 4.35    | Crosstubes - Bend     |           | GP 19-01-30 |
| 120   | QC 15                 | 1 pcs | 3/1/19     | 3/1/19   | 0.00      | 0.00    | QC 15 - 12            |           |             |
|       |                       |       |            |          |           |         | QC 15 - 3             |           | DAS         |
|       |                       |       |            |          |           |         | QC 15 - 38            |           | 38          |
|       |                       |       |            |          |           |         | QC 15 - 47            |           | 9-86        |
|       |                       |       |            |          |           |         | QC 15 - 49            |           |             |
|       |                       |       |            |          |           |         | QC 15 - 58            |           |             |
|       |                       |       |            |          |           |         | QC 15 - 9             |           |             |
| 130   | Crosstubes - 2 - B4B  | 1 pcs | 3/1/19     | 3/1/19   | 0.00      | 2.86    | Crosstubes - 1 - B4B  |           |             |
|       |                       |       |            |          |           |         | Crosstubes - 2 - B4B  |           | GP 19-02-04 |
|       |                       |       |            |          |           |         | Crosstubes - 3 - B4B  |           |             |
| 140   | Crosstubes - 3 - B4B  | 1 pcs | 3/1/19     | 3/1/19   | 0.00      | 0.55    | Crosstubes - 1 - B4B  |           |             |
|       |                       |       |            |          |           |         | Crosstubes - 2 - B4B  |           |             |
|       |                       |       |            |          |           |         | Crosstubes - 3 - B4B  |           | GP 19-02-04 |
| 150   | QC 7                  | 1 pcs | 3/1/19     | 3/1/19   | 0.00      | 0.00    | QC 7 - 10             |           |             |
|       |                       |       |            |          |           |         | QC 7 - 13             |           |             |
|       |                       |       |            |          |           |         | QC 7 - 14             |           |             |
|       |                       |       |            |          |           |         | QC 7 - 15             |           |             |
|       |                       |       |            |          |           |         | QC 7 - 17             |           |             |
|       |                       |       |            |          |           |         | QC 7 - 18             |           |             |
|       |                       |       |            |          |           |         | QC 7 - 19             |           |             |
|       |                       |       |            |          |           |         | QC 7 - 2              |           |             |
|       |                       |       |            |          |           |         | QC 7 - 28             |           |             |
|       |                       |       |            |          |           |         | QC 7 - 3              |           |             |
|       |                       |       |            |          |           |         | QC 7 - 30             |           |             |
|       |                       |       |            |          |           |         | QC 7 - 34             |           |             |
|       |                       |       |            |          |           |         | QC 7 - 36             |           |             |
|       |                       |       |            |          |           |         | QC 7 - 37             |           |             |
|       |                       |       |            |          |           |         | QC 7 - 38             |           |             |
|       |                       |       |            |          |           |         | QC 7 - 41             |           |             |
|       |                       |       |            |          |           |         | QC 7 - 47             |           |             |
|       |                       |       |            |          |           |         | QC 7 - 48             |           |             |

Plex 1/30/19 3:14 PM dart.white.jesse

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                        |  |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Sequence #: _____                                                                                                                 | QTY Affected : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | MRB (QSI042) _____     |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex; flex-direction: column; align-items: flex-start;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Presservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |



|     |                                |       |        |           |                        |                |
|-----|--------------------------------|-------|--------|-----------|------------------------|----------------|
|     |                                |       |        |           | QC 7 - 51              |                |
|     |                                |       |        |           | QC 7 - 58              |                |
|     |                                |       |        |           | QC 7 - 59              |                |
|     |                                |       |        |           | QC 7 - 6               |                |
|     |                                |       |        |           | QC 7 - 60              |                |
|     |                                |       |        |           | QC 7 - 9               |                |
|     |                                |       |        |           | QC 7 - 68              | FEB 05 2019 68 |
|     |                                |       |        |           | QC 7 - 50              | 9-89           |
|     |                                |       |        |           | QC 7 - 67              |                |
| 160 | QC 5                           | 1 pcs | 3/1/19 | 0.00 0.00 | QC 5 - 10              |                |
|     |                                |       |        |           | QC 5 - 12              |                |
|     |                                |       |        |           | QC 5 - 17              |                |
|     |                                |       |        |           | QC 5 - 18              |                |
|     |                                |       |        |           | QC 5 - 19              |                |
|     |                                |       |        |           | QC 5 - 22              |                |
|     |                                |       |        |           | QC 5 - 24              |                |
|     |                                |       |        |           | QC 5 - 3               |                |
|     |                                |       |        |           | QC 5 - 38              |                |
|     |                                |       |        |           | QC 5 - 42              |                |
|     |                                |       |        |           | QC 5 - 43              |                |
|     |                                |       |        |           | QC 5 - 49              |                |
|     |                                |       |        |           | QC 5 - 51              |                |
|     |                                |       |        |           | QC 5 - 58              |                |
|     |                                |       |        |           | QC 5 - 68              | FEB 05 2019 68 |
|     |                                |       |        |           | QC 5 - 9               | 9-89           |
|     |                                |       |        |           | QC 5 - 50              |                |
|     |                                |       |        |           | QC 5 - 30              |                |
| 170 | Outsource - 2 - NDT per QSI038 | 1 pcs | 3/1/19 |           | SKY002-VC              | 1 CT 19-02-19  |
| 180 | Packaging 2-1 - Receive - B4B  | 1 pcs | 3/1/19 | 0.00 0.00 | Packaging 2 - 1 - B4B  |                |
|     |                                |       |        |           | Packaging 2 - 2 - B4B  |                |
|     |                                |       |        |           | Packaging 2 - 3 - B4B  |                |
|     |                                |       |        |           | Packaging 2 - 5 - B4B  |                |
|     |                                |       |        |           | Packaging 2 - 4 - B4B  | FEB 21 2019    |
|     |                                |       |        |           | Packaging 2 - 6 - B4B  |                |
|     |                                |       |        |           | Packaging 2 - 7 - B4B  |                |
|     |                                |       |        |           | Packaging 2 - 8 - B4B  |                |
|     |                                |       |        |           | Packaging 2 - 9 - B4B  |                |
|     |                                |       |        |           | Packaging 2 - 10 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 11 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 12 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 13 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 14 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 15 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 16 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 17 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 18 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 19 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 20 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 21 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 22 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 23 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 24 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 25 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 26 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 27 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 28 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 29 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 30 - B4B |                |
|     |                                |       |        |           | Packaging 2 - 31 - B4B |                |

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Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex; flex-direction: column;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Presservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |



|     |                                   |       |        |           |                        |                |
|-----|-----------------------------------|-------|--------|-----------|------------------------|----------------|
|     |                                   |       |        |           | Packaging 2 - 32 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 33 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 34 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 35 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 36 - B4B |                |
| 190 | QC 5                              | 1 pcs | 3/1/19 | 0.00 0.00 | QC 5 - 10              |                |
|     |                                   |       |        |           | QC 5 - 12              |                |
|     |                                   |       |        |           | QC 5 - 17              |                |
|     |                                   |       |        |           | QC 5 - 18              |                |
|     |                                   |       |        |           | QC 5 - 19              |                |
|     |                                   |       |        |           | QC 5 - 22              |                |
|     |                                   |       |        |           | QC 5 - 24              |                |
|     |                                   |       |        |           | QC 5 - 3               |                |
|     |                                   |       |        |           | QC 5 - 38              |                |
|     |                                   |       |        |           | QC 5 - 42              |                |
|     |                                   |       |        |           | QC 5 - 43              |                |
|     |                                   |       |        |           | QC 5 - 49              |                |
|     |                                   |       |        |           | QC 5 - 51              |                |
|     |                                   |       |        |           | QC 5 - 58              |                |
|     |                                   |       |        |           | QC 5 - 68              | FEB 25 2019 68 |
|     |                                   |       |        |           | QC 5 - 9               | 9-89           |
|     |                                   |       |        |           | QC 5 - 50              |                |
|     |                                   |       |        |           | QC 5 - 30              |                |
| 195 | Spray Paint - 2 - B4B             | 1 pcs | 3/1/19 | 0.00 0.00 | Spray Paint - 1 - B4B  | AR 19-2-22     |
|     |                                   |       |        |           | Spray Paint - 2 - B4B  |                |
|     |                                   |       |        |           | Spray Paint - 3 - B4B  |                |
|     |                                   |       |        |           | Spray Paint - 4 - B4B  |                |
| 200 | Outsource - 11 - Paint N/A        | 1 pcs | 3/1/19 |           | ATE003-VC              |                |
| 205 | Packaging 2-2 - Receive - B4B N/A | 1 pcs | 3/1/19 | 0.00 0.00 | Packaging 2 - 1 - B4B  |                |
|     |                                   |       |        |           | Packaging 2 - 2 - B4B  |                |
|     |                                   |       |        |           | Packaging 2 - 3 - B4B  |                |
|     |                                   |       |        |           | Packaging 2 - 5 - B4B  |                |
|     |                                   |       |        |           | Packaging 2 - 4 - B4B  |                |
|     |                                   |       |        |           | Packaging 2 - 6 - B4B  |                |
|     |                                   |       |        |           | Packaging 2 - 7 - B4B  |                |
|     |                                   |       |        |           | Packaging 2 - 8 - B4B  |                |
|     |                                   |       |        |           | Packaging 2 - 9 - B4B  |                |
|     |                                   |       |        |           | Packaging 2 - 10 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 11 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 12 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 13 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 14 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 15 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 16 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 17 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 18 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 19 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 20 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 21 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 22 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 23 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 24 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 25 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 26 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 27 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 28 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 29 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 30 - B4B |                |
|     |                                   |       |        |           | Packaging 2 - 31 - B4B |                |

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

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| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                      |  |                     |  |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Sequence #: _____                                                                                                                 | QTY Affected : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | MRB (QSI042) _____  |  |
| <b>Description Work Order Deviation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   | <b>Disposition</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | <b>Completed By</b> |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                     |  |
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| <b>Root Cause</b><br><br><div style="display: flex;"> <div style="flex: 1;">           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Preservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div style="flex: 1;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex;"> <div style="flex: 1;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="flex: 1;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="flex: 1;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                     |  |
| Other/Details: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                     |  |



|                                    |       |        |           |                        |             |
|------------------------------------|-------|--------|-----------|------------------------|-------------|
| 210 QC 14                          | 1 pcs | 3/1/19 | 0.00 0.00 | Packaging 2 - 32 - B4B |             |
|                                    |       |        |           | Packaging 2 - 33 - B4B |             |
|                                    |       |        |           | Packaging 2 - 34 - B4B |             |
|                                    |       |        |           | Packaging 2 - 35 - B4B |             |
|                                    |       |        |           | Packaging 2 - 36 - B4B |             |
|                                    |       |        |           | QC 14 - 15             |             |
|                                    |       |        |           | QC 14 - 2              |             |
|                                    |       |        |           | QC 14 - 34             |             |
|                                    |       |        |           | QC 14 - 38             |             |
|                                    |       |        |           | QC 14 - 41             |             |
|                                    |       |        |           | QC 14 - 51             |             |
| 220 Crosstubes - 4 - B4B           | 1 pcs | 3/1/19 | 0.00 2.86 | QC 14 - 58             |             |
|                                    |       |        |           | QC 14 - 59             |             |
|                                    |       |        |           | QC 14 - 9              | PD 19-03-05 |
|                                    |       |        |           | QC 14 - 68             |             |
|                                    |       |        |           | Crosstubes - 1 - B4B   | AB 19-2-25  |
|                                    |       |        |           | Crosstubes - 2 - B4B   |             |
|                                    |       |        |           | Crosstubes - 3 - B4B   |             |
|                                    |       |        |           | Crosstubes - 1 - B4B   | AB 19-2-25  |
|                                    |       |        |           | Crosstubes - 2 - B4B   |             |
|                                    |       |        |           | Crosstubes - 3 - B4B   |             |
| 230 Crosstubes - 5 - B4B           | 1 pcs | 3/1/19 | 0.00 1.91 | QC 5 - 10              |             |
|                                    |       |        |           | QC 5 - 12              |             |
|                                    |       |        |           | QC 5 - 17              |             |
|                                    |       |        |           | QC 5 - 18              |             |
|                                    |       |        |           | QC 5 - 19              |             |
|                                    |       |        |           | QC 5 - 22              |             |
|                                    |       |        |           | QC 5 - 24              |             |
|                                    |       |        |           | QC 5 - 3               |             |
|                                    |       |        |           | QC 5 - 38              |             |
|                                    |       |        |           | QC 5 - 42              |             |
|                                    |       |        |           | QC 5 - 43              |             |
| 240 QC 5                           | 1 pcs | 3/1/19 | 0.00 0.00 | QC 5 - 49              |             |
|                                    |       |        |           | QC 5 - 51              |             |
|                                    |       |        |           | QC 5 - 58              |             |
|                                    |       |        |           | QC 5 - 68              |             |
|                                    |       |        |           | QC 5 - 9               | PD 19-03-05 |
|                                    |       |        |           | QC 5 - 50              |             |
|                                    |       |        |           | QC 5 - 30              |             |
|                                    |       |        |           | Packaging 1 - 1 - B4B  |             |
|                                    |       |        |           | Packaging 1 - 2 - B4B  |             |
|                                    |       |        |           | Packaging 1 - 3 - B4B  |             |
|                                    |       |        |           | Packaging 1 - 4 - B4B  |             |
| 250 Packaging 1-2 - Pick Kit - B4B | 1 pcs | 3/1/19 | 0.00 0.00 | Packaging 1 - 5 - B4B  |             |
|                                    |       |        |           | Packaging 1 - 6 - B4B  |             |
|                                    |       |        |           | Packaging 1 - 7 - B4B  |             |
|                                    |       |        |           | Packaging 1 - 8 - B4B  |             |
|                                    |       |        |           | Packaging 1 - 9 - B4B  |             |
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|                                    |       |        |           | Packaging 1 - 12 - B4B |             |
|                                    |       |        |           | Packaging 1 - 13 - B4B |             |
|                                    |       |        |           | Packaging 1 - 14 - B4B |             |
|                                    |       |        |           | Packaging 1 - 15 - B4B |             |
|                                    |       |        |           | Packaging 1 - 16 - B4B |             |
|                                    |       |        |           | Packaging 1 - 17 - B4B |             |
|                                    |       |        |           | Packaging 1 - 18 - B4B |             |
|                                    |       |        |           | Packaging 1 - 19 - B4B |             |
|                                    |       |        |           | Packaging 1 - 20 - B4B |             |

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
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| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex; flex-direction: column; align-items: flex-start;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Preservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |



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|     |                             |       |        |           | Packaging 1 - 21 - B4B |  |
|     |                             |       |        |           | Packaging 1 - 22 - B4B |  |
|     |                             |       |        |           | Packaging 1 - 23 - B4B |  |
|     |                             |       |        |           | Packaging 1 - 24 - B4B |  |
|     |                             |       |        |           | Packaging 1 - 25 - B4B |  |
|     |                             |       |        |           | Packaging 1 - 26 - B4B |  |
|     |                             |       |        |           | Packaging 1 - 27 - B4B |  |
|     |                             |       |        |           | Packaging 1 - 28 - B4B |  |
|     |                             |       |        |           | Packaging 1 - 29 - B4B |  |
|     |                             |       |        |           | Packaging 1 - 30 - B4B |  |
|     |                             |       |        |           | Packaging 1 - 31 - B4B |  |
|     |                             |       |        |           | Packaging 1 - 32 - B4B |  |
|     |                             |       |        |           | Packaging 1 - 33 - B4B |  |
|     |                             |       |        |           | Packaging 1 - 34 - B4B |  |
|     |                             |       |        |           | Packaging 1 - 35 - B4B |  |
|     |                             |       |        |           | Packaging 1 - 36 - B4B |  |
| 260 | QC 4                        | 1 pcs | 3/1/19 | 0.00 0.00 | QC 4 - 26              |  |
|     |                             |       |        |           | QC 4 - 28              |  |
|     |                             |       |        |           | QC 4 - 38              |  |
|     |                             |       |        |           | QC 4 - 42              |  |
|     |                             |       |        |           | QC 4 - 58              |  |
|     |                             |       |        |           | QC 4 - 6               |  |
|     |                             |       |        |           | QC 4 - 69              |  |
|     |                             |       |        |           | QC 4 - 9               |  |
|     |                             |       |        |           | QC 4 - 46              |  |
| 265 | DC - 1 - B4B                | 1 pcs | 3/1/19 | 0.00 0.00 | DC - 1 - B4B           |  |
|     |                             |       |        |           | DC - 2 - B4B           |  |
| 270 | Packaging 3-1 - Stock - B4B | 1 pcs | 3/1/19 | 0.00 0.00 | Packaging 3 - 1 - B4B  |  |
|     |                             |       |        |           | Packaging 3 - 2 - B4B  |  |
|     |                             |       |        |           | Packaging 3 - 3 - B4B  |  |
|     |                             |       |        |           | Packaging 3 - 4 - B4B  |  |
|     |                             |       |        |           | Packaging 3 - 5 - B4B  |  |
|     |                             |       |        |           | Packaging 3 - 6 - B4B  |  |
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|     |                             |       |        |           | Packaging 3 - 8 - B4B  |  |
|     |                             |       |        |           | Packaging 3 - 9 - B4B  |  |
|     |                             |       |        |           | Packaging 3 - 10 - B4B |  |
|     |                             |       |        |           | Packaging 3 - 11 - B4B |  |
|     |                             |       |        |           | Packaging 3 - 12 - B4B |  |
|     |                             |       |        |           | Packaging 3 - 13 - B4B |  |
|     |                             |       |        |           | Packaging 3 - 14 - B4B |  |
|     |                             |       |        |           | Packaging 3 - 15 - B4B |  |
|     |                             |       |        |           | Packaging 3 - 16 - B4B |  |
|     |                             |       |        |           | Packaging 3 - 17 - B4B |  |
|     |                             |       |        |           | Packaging 3 - 18 - B4B |  |
|     |                             |       |        |           | Packaging 3 - 19 - B4B |  |
|     |                             |       |        |           | Packaging 3 - 20 - B4B |  |
|     |                             |       |        |           | Packaging 3 - 21 - B4B |  |
|     |                             |       |        |           | Packaging 3 - 22 - B4B |  |
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|     |                             |       |        |           | Packaging 3 - 30 - B4B |  |
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46 MAR 06 2019  
9-89

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

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| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                     |  |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Sequence #: _____                                                                                                                 | QTY Affected : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | MRB (QSI042) _____  |  |
| <b>Description Work Order Deviation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                   | <b>Disposition</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | <b>Completed By</b> |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                     |  |
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| <b>Root Cause</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Presservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                     |  |
| Other/Details: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                     |  |



|                |       |        |           |                        |  |
|----------------|-------|--------|-----------|------------------------|--|
|                |       |        |           | Packaging 3 - 33 - B4B |  |
|                |       |        |           | Packaging 3 - 34 - B4B |  |
|                |       |        |           | Packaging 3 - 35 - B4B |  |
|                |       |        |           | Packaging 3 - 36 - B4B |  |
| 280 QC 21 - FG | 1 pcs | 3/1/19 | 0.00 0.00 | QC 21 - FG - 21        |  |
|                |       |        |           | QC 21 - FG - 70        |  |

Part Op 110 - CNC Alpha 160 Bender - Bend tube as per Dwg D206-667-247 using CNC bender program D206-667-207  
 Descriptions: 120 - QC15- Crosstube Dimensional Check

130 - Crosstubes \*\*\*\*\* ENSURE PROPER JIG POSITIONING BEFORE DRILLING\*\*\*\*\* , VERIFIED

BY: \*\*\*\*\* 1-Drill pilot holes in tube using drill Jig DT8583 & DT8584 as per Dwg D206-667-247. Drill all (3) top holes. Holes facing inboard. Drill and Ream all holes in tube to finish size using drill Jig DT8583 & DT8584 as per Dwg D206-667-247 \*\*\*\*\* ENSURE PROPER JIG POSITIONING BEFORE DRILLING\*\*\*\*\* , VERIFIED BY: \*\*\*\*\*  
 2- Drill fwd rivet holes using drill Jig DT8787 fwd as per Dwg D206-667-247. Note: FWD side has 3X top holes facing inboard. 3- C'sink holes as per dwg D206-667-247. Allow rivet to sit below surface to compensate for paint. 4- Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins. Drill ONLY 2 top holes ONLY plug most bottom hole to prevent accidental drilling. Drill holes and ream using drill Jig DT8583 & DT8584 as per Dwg D206-667-247. Drill only the top (2) holes. Drill & ream the top (2) hole

140 - Crosstubes Chemical Conversion \*\*\*IMMEDIATELY AFTER GRINDING\*\*\* 1- PRESSURE WASH X-TUBE INSIDE AND OUT 2- ALODINE AND ACID ETCH X-TUBE INSIDE AND OUT AS PER QSI005.

150 - QC7-Inspect Chemical Conversion Coat

160 - QC5- Inspect part completeness to step on W/O

170 - Outsource process - NDT per QSI038 4.1 \*\*\* WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE\*\*\* Liquid Penetrant Inspection as per QSI 038Or Issue P/O: \_\_\_\_\_ LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order

180 - Receive & Inspect for Damage & Mat'l Certs \*\*\* WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE\*\*\* Ensure copy of NDT results attached to work order.

190 - QC5- Inspect part completeness to step on W/O \*\*\* WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE\*\*\* Ensure results are as per Dwg D206-667-247

195 - Spray Paint / NDT Room

200 - ISSUE PO 042630 \*\*\* WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE\*\*\* \*\*VERIFY

BY \_\_\_\_\_ BATCH # TO MATCH W/O \_\_\_\_\_ \*\*VERIFY BY \_\_\_\_\_ PART # TO MATCH

W/O \_\_\_\_\_ \*\*MASK SCRIBE B# & P# AND VERIFY\*\*\* 1-Prime inside and outside crosstube as per

QSI 005 4.2 2-Paint outside crosstube as per QSI 005 4.2 PRIME: Start Time: \_\_\_\_\_ Finish Time: 5135773

PAINT: DELFLEET BLUE 5156229 Start Time: \_\_\_\_\_ Finish Time: \_\_\_\_\_ CLEAR DELFLEET B 5130712

205 - Receive & Inspect for Damage & Mat'l Certs

210 - QC14- Inspect Spray Paint Wrap in plastic bag to protect from scratches \*\*\*VERIFY BY \_\_\_\_\_ BATCH # TO MATCH W/O \_\_\_\_\_ \*\*VERIFY BY \_\_\_\_\_ PART # TO MATCH W/O \_\_\_\_\_

220 - Crosstubes - 1-Install nut plates as per Dwg D206-667-247.

230 - 1-Abraze mating surfaces of support and crosstube with 400 grit sandpaper, clean the area with 4105S wash 'n' wipe 2-Install supports with Proseal 890 per DSI9565 and QSI 015 A/R Proseal 890 Batch: 138976 3- Torque bolts as per dwg exp 6/19

240 - QC5- Inspect part completeness to step on W/O \*\*\*VERIFY BY \_\_\_\_\_ BATCH # TO MATCH W/O

\*\*\*VERIFY BY \_\_\_\_\_ PART # TO MATCH W/O \_\_\_\_\_

250 - Pick Kit

260 - QC4- 100% Inspect kits for completeness \*\*\*VERIFY BY \_\_\_\_\_ BATCH # TO MATCH W/O

\*\*\*VERIFY BY \_\_\_\_\_ PART # TO MATCH W/O \_\_\_\_\_

265 - Document Control Photocopy bluefile and create labels as per PPP D206-667-207 chg 002

270 - Identify as per dwg & Stock Location: \_\_\_\_\_ Identify and pack for shipping as per PPP D206-667-207

Location: \_\_\_\_\_ PPP Rev: \_\_\_\_\_

280 - QC21- Final Inspection - Work Order Release

### Job BOM

| Part / Item     | Component Name                         | Quantity      | Operation                          | Container        |
|-----------------|----------------------------------------|---------------|------------------------------------|------------------|
| D206-667-247TRN | Crosstube Assembly, Mid Aft            | 1 pcs (1 ea)  | 110-Crosstubes - Bend - 1          | <u>3035787</u>   |
| D2873-043       | Nut Plate Assembly                     | 2 Ea (2 ea)   | 220-Crosstubes - 4 - B4B           |                  |
| D2873-045       | Nut Plate Assembly                     | 2 pcs (2 ea)  | 220-Crosstubes - 4 - B4B           |                  |
| MS20601-AD4W10  | Rivet                                  | 14 Ea (14 ea) | 220-Crosstubes - 4 - B4B           |                  |
| D2892-1         | Support                                | 2 pcs (2 ea)  | 230-Crosstubes - 5 - B4B           |                  |
| D3595-063-450   | Rubber Cushion 0.63" Wide X 4.50" Long | 4 pcs (4 ea)  | 230-Crosstubes - 5 - B4B           |                  |
| MS21920-22      | Clamp                                  | 4 Ea (4 ea)   | 230-Crosstubes - 5 - B4B           |                  |
| AN5-10A         | Bolt                                   | 10 Ea (10 ea) | 250-Packaging 1-2 - Pick Kit - B4B | <u>5135805</u>   |
| AN5-32A         | Bolt                                   | 4 Ea (4 ea)   | 250-Packaging 1-2 - Pick Kit - B4B | <u>5058983-1</u> |
| AN5-34A         | Bolt                                   | 4 Ea (4 ea)   | 250-Packaging 1-2 - Pick Kit - B4B | <u>5019410</u>   |
| MS21042L5       | Nut                                    | 4 Ea (4 ea)   | 250-Packaging 1-2 - Pick Kit - B4B | <u>5109145</u>   |
| NAS1149D0563J   | Washer                                 | 18 Ea (18 ea) | 250-Packaging 1-2 - Pick Kit - B4B | <u>5123450</u>   |



Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                         | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b>                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   | Skid-tube <input type="checkbox"/><br>Machining <input type="checkbox"/><br>Large Fab <input type="checkbox"/>                                                                                                                                                                                 | Cross tube <input type="checkbox"/><br>Small Fab <input type="checkbox"/><br>Finishing <input type="checkbox"/>                                                                                                                                                                                                              | Eng. (Non-AW) <input type="checkbox"/><br>Prod. Eng. Coord. <input type="checkbox"/><br>Rec/Store/Packaging <input type="checkbox"/>                                                                                                                                                                   | Engineering <input type="checkbox"/><br>Water Jet <input type="checkbox"/><br>Supplier <input type="checkbox"/><br>Quality <input type="checkbox"/>                                                                                              |
| Date :                                                                                                                                                                                                                                                                                                                                                                                   | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        | MRB (QSI042)                                                                                                                                                                                                                                     |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        | Completed By                                                                                                                                                                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        | Lead hand / Supervisor                                                                                                                                                                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        | QC / QA Coordinator                                                                                                                                                                                                                              |
| <b>Root Cause</b><br><br>Operator <input type="checkbox"/><br>Manufacturing Process <input type="checkbox"/><br>Equip/Tooling <input type="checkbox"/><br>Handling/Presservation <input type="checkbox"/><br>Material <input type="checkbox"/><br>Product Improvement <input type="checkbox"/><br>Process Improvement <input type="checkbox"/><br>Human Factors <input type="checkbox"/> |                                                                                                                                   | <b>FAULT CATEGORY</b>                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   | <input type="checkbox"/> Pressure/Forced<br><input type="checkbox"/> Bending<br><input type="checkbox"/> Crushing<br><input type="checkbox"/> Cracks<br><input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br><input type="checkbox"/> Marks/Chatter<br><input type="checkbox"/> Mislabeled | <input type="checkbox"/> Contamination<br><input type="checkbox"/> Misaligned/off center<br><input type="checkbox"/> BOM/Route<br><input type="checkbox"/> Broken/Damage/Defect<br><input type="checkbox"/> Incomplete/Unclear Instructions<br><input type="checkbox"/> Drill Holes<br><input type="checkbox"/> Fit/Function | <input type="checkbox"/> Power Loss/Surge<br><input type="checkbox"/> Folio/Program<br><input type="checkbox"/> Grain Direction<br><input type="checkbox"/> Weld<br><input type="checkbox"/> Wrong Stock Pulled<br><input type="checkbox"/> Out of Sequence<br><input type="checkbox"/> Off-set/Set-up | <input type="checkbox"/> Positioned Wrong<br><input type="checkbox"/> Outside Tolerance<br><input type="checkbox"/> Drawing<br><input type="checkbox"/> Finish<br><input type="checkbox"/> Part Lost/Missing<br><input type="checkbox"/> Misread |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   | Other/Details:                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |

| Job Allocations                    |                               |                   |             |           |
|------------------------------------|-------------------------------|-------------------|-------------|-----------|
| Operation                          | Component Part                | Required          | Inventory   | Allocated |
| 110-Crosstubes - Bend - 1          | D206-667-247TRN               | 1                 | 10          | 0         |
| 220-Crosstubes - 4 - B4B           | D2873-043 <i>S133736</i>      | ②                 | 58          | 0         |
|                                    | D2873-045 <i>S125817</i>      | ②                 | 32          | 0         |
|                                    | MS20601-AD4W10 <i>S019432</i> | ①⑤ <i>S152525</i> | 302         | 0         |
| 230-Crosstubes - 5 - B4B           | D2892-1 <i>S077394</i>        | ②                 | 14          | 0         |
|                                    | D3595-063-450 <i>S150042</i>  | ④                 | 22          | 0         |
|                                    | MS21920-22 <i>S083555</i>     | ④ <i>S143751</i>  | 28314455 ③① | 0         |
| 250-Packaging 1-2 - Pick Kit - B4B | AN5-10A                       | 10                | 244         | 0         |
|                                    | AN5-32A                       | 4                 | 453         | 0         |
|                                    | AN5-34A                       | 4                 | 55          | 0         |
|                                    | MS21042L5                     | 4                 | 902         | 0         |
|                                    | NAS1149D0563J                 | 18                | 1,019       | 0         |
| Part Specifications                |                               |                   |             |           |
| Specifications could not be found. |                               |                   |             |           |

Plex 1/30/19 3:14 PM dart.white.jesse



Container No: S149818



Part: D206-667-207BL

Job No: 189820

Serial No/Batch: S149818

Revision:

Inspector:

Exp Date:

Instructions: TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAI

Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
CANADA  
TEL.: 1 613 632-5200  
Email: sales@dartaero.com  
www.dartaerospace.com



Entered: \_\_\_\_\_ Date: \_\_\_\_\_



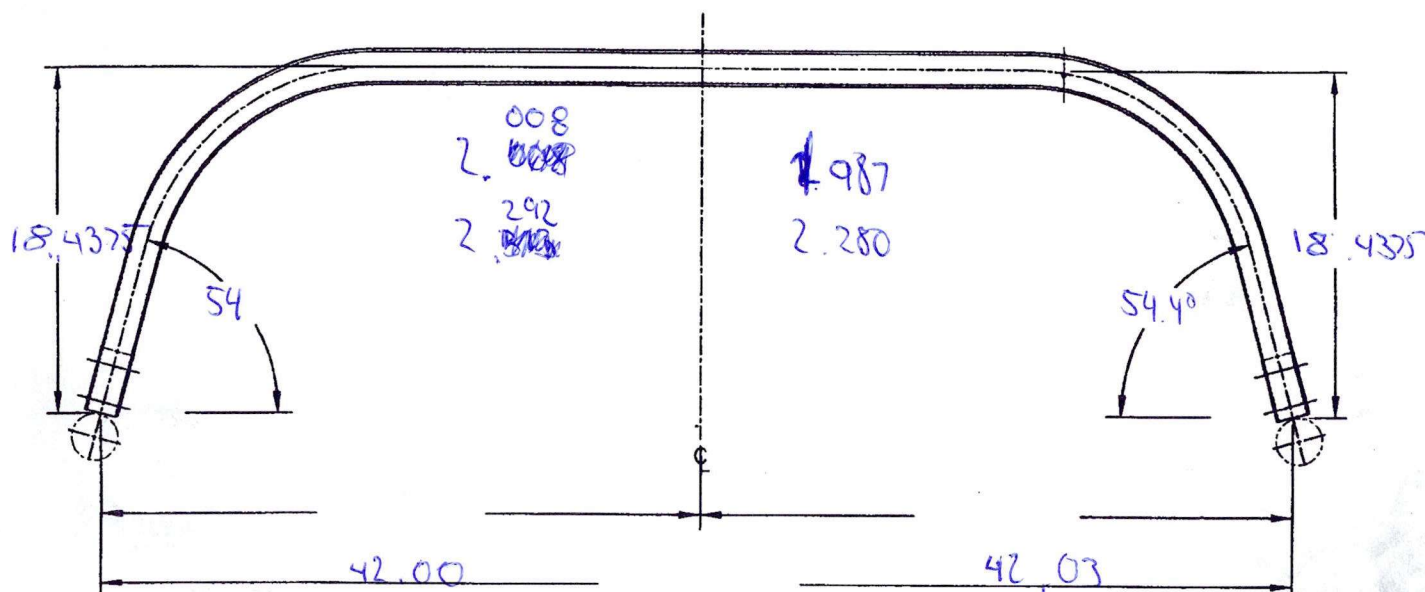
## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                      |  |                        |  |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Sequence #: _____                                                                                                                 | QTY Affected : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |
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| <b>Root Cause</b><br><br><div style="display: flex;"> <div style="flex: 1;">           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Presservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div style="flex: 1;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex;"> <div style="flex: 1;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="flex: 1;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="flex: 1;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |

| Required Dimension | Min   | Max   |
|--------------------|-------|-------|
| Height             | 18.34 | 18.60 |
| 1/2 Span           | 41.79 | 42.05 |
| Angle              | 54°   | 56°   |
| Total Span         | 83.59 | 84.09 |
| Bending Passes     | 10    | --    |
| Crushing           | --    | 6%    |



|                                  | Side A                              | Side B                              |
|----------------------------------|-------------------------------------|-------------------------------------|
| Bending Passes                   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Crushing                         | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|                                  | Comments                            |                                     |
| Acceptable per DR-1059 4/19/13/1 |                                     |                                     |

|                 |          |
|-----------------|----------|
| QC15 Inspection |          |
| Date            | 19-02-04 |

| Rev | Date     | Change                             | Revised by | Approved |
|-----|----------|------------------------------------|------------|----------|
| A   | 12.02.15 | New Issue                          | KJ         |          |
| B   | 12.04.16 | Added bending, crushing dimensions | KJ         |          |



Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                         | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b>                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   | Skid-tube <input type="checkbox"/><br>Machining <input type="checkbox"/><br>Large Fab <input type="checkbox"/>                                                                                                                                                                                 | Cross tube <input type="checkbox"/><br>Small Fab <input type="checkbox"/><br>Finishing <input type="checkbox"/>                                                                                                                                                                                                              | Eng. (Non-AW) <input type="checkbox"/><br>Prod. Eng. Coord. <input type="checkbox"/><br>Rec/Store/Packaging <input type="checkbox"/>                                                                                                                                                                   | Engineering <input type="checkbox"/><br>Water Jet <input type="checkbox"/><br>Supplier <input type="checkbox"/><br>Quality <input type="checkbox"/>                                                                                              |
| Date :                                                                                                                                                                                                                                                                                                                                                                                   | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        | MRB (QSI042)                                                                                                                                                                                                                                     |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        | Completed By                                                                                                                                                                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        | Lead hand / Supervisor                                                                                                                                                                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        | QC / QA Coordinator                                                                                                                                                                                                                              |
| <b>Root Cause</b><br><br>Operator <input type="checkbox"/><br>Manufacturing Process <input type="checkbox"/><br>Equip/Tooling <input type="checkbox"/><br>Handling/Presservation <input type="checkbox"/><br>Material <input type="checkbox"/><br>Product Improvement <input type="checkbox"/><br>Process Improvement <input type="checkbox"/><br>Human Factors <input type="checkbox"/> |                                                                                                                                   | <b>FAULT CATEGORY</b>                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   | <input type="checkbox"/> Pressure/Forced<br><input type="checkbox"/> Bending<br><input type="checkbox"/> Crushing<br><input type="checkbox"/> Cracks<br><input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br><input type="checkbox"/> Marks/Chatter<br><input type="checkbox"/> Mislabeled | <input type="checkbox"/> Contamination<br><input type="checkbox"/> Misaligned/off center<br><input type="checkbox"/> BOM/Route<br><input type="checkbox"/> Broken/Damage/Defect<br><input type="checkbox"/> Incomplete/Unclear Instructions<br><input type="checkbox"/> Drill Holes<br><input type="checkbox"/> Fit/Function | <input type="checkbox"/> Power Loss/Surge<br><input type="checkbox"/> Folio/Program<br><input type="checkbox"/> Grain Direction<br><input type="checkbox"/> Weld<br><input type="checkbox"/> Wrong Stock Pulled<br><input type="checkbox"/> Out of Sequence<br><input type="checkbox"/> Off-set/Set-up | <input type="checkbox"/> Positioned Wrong<br><input type="checkbox"/> Outside Tolerance<br><input type="checkbox"/> Drawing<br><input type="checkbox"/> Finish<br><input type="checkbox"/> Part Lost/Missing<br><input type="checkbox"/> Misread |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   | Other/Details:                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |

| Item | Qty<br>-247 | Part Number     | Description                       |
|------|-------------|-----------------|-----------------------------------|
| 1    | X           | D206-667-247    | CROSSTUBE ASSEMBLY (206L MID AFT) |
| 2    | 1           | D6004-115       | CROSSTUBE                         |
| 3    | 2           | D2873-043       | NUT PLATE                         |
| 4    | 2           | D2873-045       | NUT PLATE                         |
| 5    | 2           | D2892-1         | SUPPORT                           |
| 6    | 4           | D3595-063-450   | RUBBER CUSHION                    |
| 7    | 4           | MS21920-22      | CLAMP                             |
| 8    | 14          | MS20601AD4W10   | RIVET (OR NAS9302B-4-10)          |
| 9    | A/R         | PROSEAL 890 B-2 | SEALANT, AMS-S-8802 CLASS B-2     |

#### GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6004-115  
FINISHED LENGTH = 99.76±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-247" AND BATCH NUMBER ON INSIDE OF CUFF PER DART QSI 044 6.4 (VIBRATING STYLUS).
- 7) WEIGHT: 21.1 lbs (-607 = 17.7 lbs)
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) TO INSTALL D2892-1 SUPPORT: ABRASE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.04" TO 0.07" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- 13) INSTALL MS21920-22 CLAMPS WITH D3595-063-450 RUBBER CUSHIONS TO SECURE THE D2892-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN.-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.

RELEASED

2018 SEP 06  
ECN 18-747

|            |                                                                                                                                |     |          |
|------------|--------------------------------------------------------------------------------------------------------------------------------|-----|----------|
| B          | REVISE SHEET 2 ASSEMBLY DETAIL HOLE PATTERN PER CAR18-221. UPDATE PARTS LIST AND GENERAL NOTES 12 & 15 TO INCORPORATE DEO A-1. | JMH | 18.05.01 |
| A          | NEW ISSUE                                                                                                                      | CP  | 10.12.23 |
| REV.       | DESCRIPTION                                                                                                                    | BY  | DATE     |
| DESIGN     | JP                                                                                                                             |     |          |
| DRAWN      | JMH                                                                                                                            |     |          |
| CHECKED    | ZF                                                                                                                             |     |          |
| MFG. APPR. | ATG                                                                                                                            |     |          |
| APPROVED   | NO                                                                                                                             |     |          |
| DE APPR.   | JP                                                                                                                             |     |          |
| DATE       | 18.05.01                                                                                                                       |     |          |

|                                                                                                                                                                                                                                                                          |                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                 |                        |
| DRAWING NO.<br>D206-667-247                                                                                                                                                                                                                                              | REV. B<br>SHEET 1 OF 4 |
| TITLE<br>CROSSTUBE ASS'Y (206L MID AFT)                                                                                                                                                                                                                                  | SCALE<br>NTS           |
| COPYRIGHT © 2010 BY DART AEROSPACE LTD<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. IT IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. |                        |

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

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| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                        |  |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sequence #: _____                                                                                                                 | QTY Affected : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | MRB (QSI042) _____     |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
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| <b>Root Cause</b><br><br><div style="display: flex; flex-direction: column; align-items: flex-start;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Preservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |





Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

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| <p>Job: _____</p> <p>Part No. _____</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"><div>Skid-tube <input type="checkbox"/><br/>Machining <input type="checkbox"/><br/>Large Fab <input type="checkbox"/></div><div>Cross tube <input type="checkbox"/><br/>Small Fab <input type="checkbox"/><br/>Finishing <input type="checkbox"/></div><div>Eng. (Non-AW) <input type="checkbox"/><br/>Prod. Eng. Coord. <input type="checkbox"/><br/>Rec/Store/Packaging <input type="checkbox"/></div><div>Engineering <input type="checkbox"/><br/>Water Jet <input type="checkbox"/><br/>Supplier <input type="checkbox"/><br/>Quality <input type="checkbox"/></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                     |  |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Sequence #: _____                                                                                                                 | QTY Affected : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | MRB (QSI042)        |  |
| <b>Description Work Order Deviation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                   | <b>Disposition</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | <b>Completed By</b> |  |
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| <b>Root Cause</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                   | <b>FAULT CATEGORY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                     |  |
| <div style="display: flex; flex-direction: column; align-items: flex-start;"><div>Operator <input type="checkbox"/></div><div>Manufacturing Process <input type="checkbox"/></div><div>Equip/Tooling <input type="checkbox"/></div><div>Handling/Preservation <input type="checkbox"/></div><div>Material <input type="checkbox"/></div><div>Product Improvement <input type="checkbox"/></div><div>Process Improvement <input type="checkbox"/></div><div>Human Factors <input type="checkbox"/></div></div> |                                                                                                                                   | <div style="display: flex; flex-wrap: wrap;"><div style="width: 50%;">Pressure/Forced <input type="checkbox"/></div><div style="width: 50%;">Contamination <input type="checkbox"/></div><div style="width: 50%;">Power Loss/Surge <input type="checkbox"/></div><div style="width: 50%;">Positioned Wrong <input type="checkbox"/></div><div style="width: 50%;">Bending <input type="checkbox"/></div><div style="width: 50%;">Misaligned/off center <input type="checkbox"/></div><div style="width: 50%;">Folio/Program <input type="checkbox"/></div><div style="width: 50%;">Outside Tolerance <input type="checkbox"/></div><div style="width: 50%;">Crushing <input type="checkbox"/></div><div style="width: 50%;">BOM/Route <input type="checkbox"/></div><div style="width: 50%;">Grain Direction <input type="checkbox"/></div><div style="width: 50%;">Drawing <input type="checkbox"/></div><div style="width: 50%;">Cracks <input type="checkbox"/></div><div style="width: 50%;">Broken/Damage/Defect <input type="checkbox"/></div><div style="width: 50%;">Weld <input type="checkbox"/></div><div style="width: 50%;">Finish <input type="checkbox"/></div><div style="width: 50%;">Crimp/Kink/Ripple/Wave/Twist <input type="checkbox"/></div><div style="width: 50%;">Incomplete/Unclear Instructions <input type="checkbox"/></div><div style="width: 50%;">Wrong Stock Pulled <input type="checkbox"/></div><div style="width: 50%;">Part Lost/Missing <input type="checkbox"/></div><div style="width: 50%;">Marks/Chatter <input type="checkbox"/></div><div style="width: 50%;">Drill Holes <input type="checkbox"/></div><div style="width: 50%;">Out of Sequence <input type="checkbox"/></div><div style="width: 50%;">Misread <input type="checkbox"/></div><div style="width: 50%;">Mislabeled <input type="checkbox"/></div><div style="width: 50%;">Fit/Function <input type="checkbox"/></div><div style="width: 50%;">Off-set/Set-up <input type="checkbox"/></div></div> |  |                     |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                     |  |





Entered: \_\_\_\_\_ Date: \_\_\_\_\_



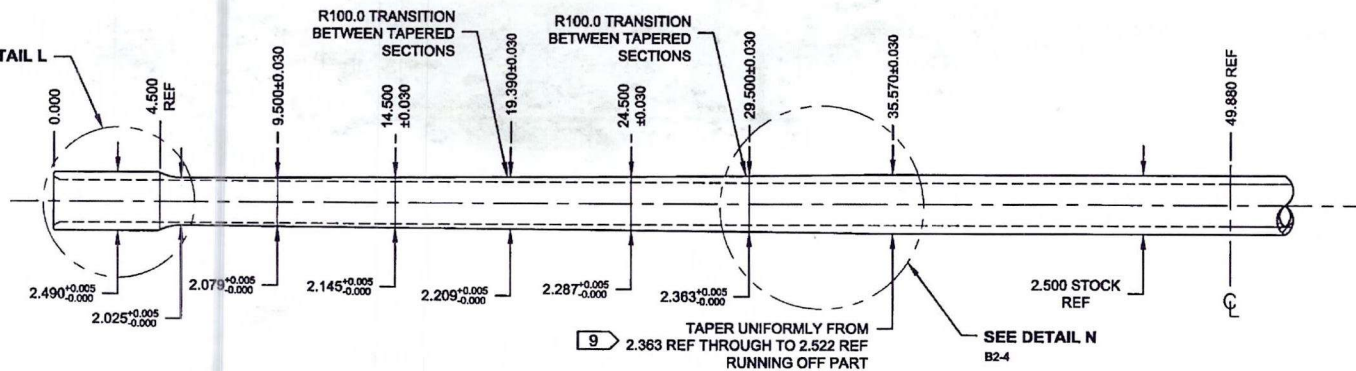
## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

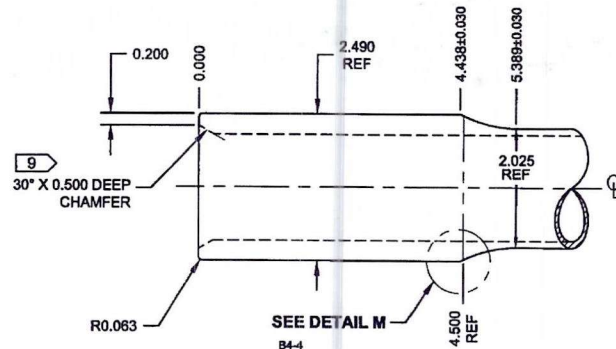
Route update only ☐

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                      |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex;"> <div style="flex: 1;">           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Presservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div style="flex: 1;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex;"> <div style="flex: 1;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="flex: 1;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="flex: 1;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |

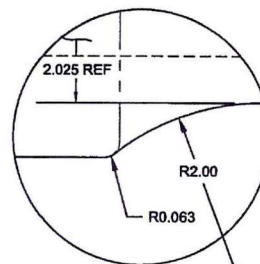
SEE DETAIL L  
B7-4



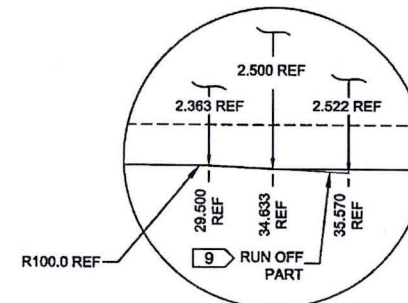
# TURNING DETAIL



C7-4 **DETAIL L: CROSTUBE CUFF**  
SCALE 2.5X



B6-4 **DETAIL M: CUFF TRANSITION**  
NOT TO SCALE



C4-4 **DETAIL N: TAPER RUN-OFF**  
NOT TO SCALE

RELEASED

2018 SEP 06

|                                                                                                                                                                                                                                |          |                                        |              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------|--------------|
| DESIGN                                                                                                                                                                                                                         | 40       | <b>DART AEROSPACE LTD</b>              |              |
| DRAWN                                                                                                                                                                                                                          | JMH      | HAWKESBURY, ONTARIO, CANADA            |              |
| CHECKED                                                                                                                                                                                                                        | ZF       | DRAWING NO.                            | REV. B       |
| MFG. APPR.                                                                                                                                                                                                                     | AES      | D206-667-247                           | SHEET 4 OF 4 |
| APPROVED                                                                                                                                                                                                                       | NO       | TITLE                                  | SCALE        |
| DE APPR.                                                                                                                                                                                                                       | 40       | CROSSTUBE ASS'Y (206L MID AFT)         | NTS          |
| DATE                                                                                                                                                                                                                           | 18.05.01 | COPYRIGHT © 2010 BY DART AEROSPACE LTD |              |
| THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD. |          |                                        |              |

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                     |  |
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| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                     |  |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Sequence #: _____                                                                                                                 | QTY Affected : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | MRB (QSI042) _____  |  |
| <b>Description Work Order Deviation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                   | <b>Disposition</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | <b>Completed By</b> |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                     |  |
| <b>Root Cause</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Presservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div>           Pressure/Forced <input type="checkbox"/><br/>           Bending <input type="checkbox"/><br/>           Crushing <input type="checkbox"/><br/>           Cracks <input type="checkbox"/><br/>           Crimp/Kink/Ripple/Wave/Twist <input type="checkbox"/><br/>           Marks/Chatter <input type="checkbox"/><br/>           Mislabeled <input type="checkbox"/> </div> <div>           Contamination <input type="checkbox"/><br/>           Misaligned/off center <input type="checkbox"/><br/>           BOM/Route <input type="checkbox"/><br/>           Broken/Damage/Defect <input type="checkbox"/><br/>           Incomplete/Unclear Instructions <input type="checkbox"/><br/>           Drill Holes <input type="checkbox"/><br/>           Fit/Function <input type="checkbox"/> </div> <div>           Power Loss/Surge <input type="checkbox"/><br/>           Folio/Program <input type="checkbox"/><br/>           Grain Direction <input type="checkbox"/><br/>           Weld <input type="checkbox"/><br/>           Wrong Stock Pulled <input type="checkbox"/><br/>           Out of Sequence <input type="checkbox"/><br/>           Off-set/Set-up <input type="checkbox"/> </div> <div>           Positioned Wrong <input type="checkbox"/><br/>           Outside Tolerance <input type="checkbox"/><br/>           Drawing <input type="checkbox"/><br/>           Finish <input type="checkbox"/><br/>           Part Lost/Missing <input type="checkbox"/><br/>           Misread <input type="checkbox"/> </div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Presservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div>           Pressure/Forced <input type="checkbox"/><br/>           Bending <input type="checkbox"/><br/>           Crushing <input type="checkbox"/><br/>           Cracks <input type="checkbox"/><br/>           Crimp/Kink/Ripple/Wave/Twist <input type="checkbox"/><br/>           Marks/Chatter <input type="checkbox"/><br/>           Mislabeled <input type="checkbox"/> </div> <div>           Contamination <input type="checkbox"/><br/>           Misaligned/off center <input type="checkbox"/><br/>           BOM/Route <input type="checkbox"/><br/>           Broken/Damage/Defect <input type="checkbox"/><br/>           Incomplete/Unclear Instructions <input type="checkbox"/><br/>           Drill Holes <input type="checkbox"/><br/>           Fit/Function <input type="checkbox"/> </div> <div>           Power Loss/Surge <input type="checkbox"/><br/>           Folio/Program <input type="checkbox"/><br/>           Grain Direction <input type="checkbox"/><br/>           Weld <input type="checkbox"/><br/>           Wrong Stock Pulled <input type="checkbox"/><br/>           Out of Sequence <input type="checkbox"/><br/>           Off-set/Set-up <input type="checkbox"/> </div> <div>           Positioned Wrong <input type="checkbox"/><br/>           Outside Tolerance <input type="checkbox"/><br/>           Drawing <input type="checkbox"/><br/>           Finish <input type="checkbox"/><br/>           Part Lost/Missing <input type="checkbox"/><br/>           Misread <input type="checkbox"/> </div> </div> |  |                     |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                     |  |





Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER

## PO042630



**Supplier:** SKY002-VC  
Skyservice  
6120 Midfield Road  
Mississauga  
ON  
L5P 1B1 Canada  
Phone: 905-678-5636  
Fax: 905-678-5841

**PO No:** PO042630  
**PO Date:** 2/19/19  
**Due Date:** 2/21/19  
**Purchase Order**  
**Revision:**  
**Revision Date:**  
**Ship-To Contact:** Tsimiklis, ChrisoulaPhone:

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground  
**Pymt Terms:** Net 30  
**Freight Terms:**  
**Special Comments:**

### Items

| Line Item         | Job      | Part           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Status | Account | Due Date | Order Quantity | Received Quantity | Balance  | Unit Price (CAD) | Extended Price  |
|-------------------|----------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|----------|----------------|-------------------|----------|------------------|-----------------|
| 1                 | 187761-A | D4884-1        | End Fitting, Eye<br>: Various STC's<br>(Outsource process - NDT<br>per QSI038 4.1)ISSUE P/O                                                                                                                                                                                                                                                                                                                                                                                                                                     | Firmed | -       | 2/21/19  | 4 pcs          | 0 pcs             | 4 pcs    | \$98.50/pcs      | \$394.00        |
| 2                 | 186474   | D206-667-207BL | Aft Crosstube - Mid Height<br>206L / L1 / L3 / L4, Blue<br>: TC STC SH01-5 Issue 3,<br>FAA STC SR01304NY<br>05/12/15, JCAB JAPAN STC-<br>32-OSA 02/02/28, EASA<br>STC EASA.IM.R.S.01179<br>06/07/03, BRAZIL 2009S08-<br>16 09/08/25, BRAZIL<br>2009S08-17 09/08/25<br>Outsource process - NDT<br>per QSI038 4.1<br>*** WEAR LATEX GLOVES<br>WHEN HANDLING<br>CROSSTUBE*** Liquid<br>Penetrant Inspection as per<br>QSI 038Or Issue<br>P/O: _____ LPI as per<br>ASTM 1417 Level 2 Attach<br>copy of NDT results to work<br>order | Firmed | -       | 2/21/19  | 1 pcs          | 0 pcs             | 1 pcs    | \$98.50/pcs      | \$98.50         |
|                   | 189820   |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Firmed | -       | 2/21/19  | 1 pcs          | 0 pcs             | 1 pcs    | \$98.50/pcs      | \$98.50         |
| <b>Sub Total:</b> |          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |         |          | <b>2</b>       | <b>0</b>          | <b>2</b> |                  | <b>\$197.00</b> |



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER PO042630



| Items        |        |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |         |          |                |                   |         |                  |                |
|--------------|--------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|----------|----------------|-------------------|---------|------------------|----------------|
| Line Item    | Job    | Part           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Status | Account | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD) | Extended Price |
| 3            | 189425 | D407-667-205MB | Aft Crosstube - High 407, Matte Black<br>: TC STC SH01-5 Issue 3, FAA STC SR01304NY<br>05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179<br>06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25<br>*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 0380                                                                                                                                       | Firmed | -       | 2/21/19  | 1 pcs          | 0 pcs             | 1 pcs   | \$98.50/pcs      | \$98.50        |
|              | 190372 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Firmed | -       | 2/21/19  | 1 pcs          | 0 pcs             | 1 pcs   | \$98.50/pcs      | \$98.50        |
| Sub Total:   |        |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |         |          | 2              | 0                 | 2       |                  | \$197.00       |
| 4            | 189422 | D407-667-105MB | Fwd Crosstube - High 407, Matte Black<br>: TC STC SH01-5 Issue 3, FAA STC SR01304NY<br>05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179<br>06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25<br>Outsource2 (Outsource process - NDT per QSI038 4.1) *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** OUTSIDE SERVICE -CROSSTUBES Liquid Penetrant Inspection as per QSI 038 Or Level 2<br>Attach copy of NDT results to work order | Firmed | -       | 2/21/19  | 1 pcs          | 0 pcs             | 1 pcs   | \$98.50/pcs      | \$98.50        |
|              | 189423 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Firmed | -       | 2/21/19  | 1 pcs          | 0 pcs             | 1 pcs   | \$98.50/pcs      | \$98.50        |
| Sub Total:   |        |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |         |          | 2              | 0                 | 2       |                  | \$197.00       |
| Grand Total: |        |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |         |          |                |                   |         | \$985.00         |                |



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER

## PO042630



### Order Notes

#### Procurement Quality Clauses

A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification (as applicable)

A022 Apical Processing  
A024 process certifications  
A026 certification of material conformance

A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

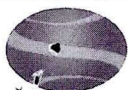
A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Plex 2/20/19 9:21 AM dart.tsimiklis.chrisoula



**skyservice****Work Order Traveler**

Sky Service F.B.O. Inc.

10105 Ryan Avenue, Dorval, Quebec, H9P 1A2

TCCA AMO 53-89 / EASA 145.7142 / BDA AMO 385

|                          |                               |               |                     |
|--------------------------|-------------------------------|---------------|---------------------|
| WO #: MWO39367           | Customer: Dart Aerospace Ltd. | Dept: NDT YUL | Reference: PO042630 |
| Descr:                   | PN:                           | S/N:          | Qty: 1              |
| Make:                    | Model:                        | Reg:          | A/C S/N:            |
| TSN:                     | CSN:                          | TSO:          |                     |
| Task: <b>UNSCHEDULED</b> |                               |               | Sequence: 1         |

**Work Required:**

CARRY OUT NDT (LIQUID PENETRANT CRACK TEST) ON THE FOLLOWING 6 CROSSTUBES and 4 END FITTINGS EYE:

P/N: D4884-1 END FITTINGS      JOB SHEET#187761-A (4 ea)

P/N: D407-667-105MB FWD CROSSTUBE-HIGH 407  
1- JOB SHEET# 189422      2- JOB SHEET# 189423

P/N: D407-667-205MB AFT CROSSTUBE-HIGH 407  
3- JOB SHEET# 189425      4- JOB SHEET# 190372

P/N: D206-667-207BL AFT CROSSTUBE  
5- JOB SHEET# 186474      6- JOB SHEET# 189820

DAS  
68  
9-89

|                                                                                   |          |     |     |       |                |                |
|-----------------------------------------------------------------------------------|----------|-----|-----|-------|----------------|----------------|
| <b>Action Taken:</b>                                                              |          |     |     |       | Date:          | Initial/Stamp: |
| LIQUID PENETRANT INSPECTION CARRIED OUT ON ITEMS LISTED ABOVE AS PER ASTM1417M-16 |          |     |     |       | 19 Feb<br>2019 |                |
| -NO CRACK FOUND.                                                                  |          |     |     |       |                |                |
| PEN.(ZL-56, MPO13600), DEV.(SKD-S2, MPO11715), CLEANER(SKC-S, MPO MPO19368)       |          |     |     |       |                |                |
| Description                                                                       | Location | P/N | Qty | Batch | S/N Off        | S/N On         |
|                                                                                   |          |     |     |       |                |                |
|                                                                                   |          |     |     |       |                |                |
|                                                                                   |          |     |     |       |                |                |
|                                                                                   |          |     |     |       |                |                |

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

|                       |               |                   |
|-----------------------|---------------|-------------------|
| Signature:            | ACA/SCA Stamp | Date: 19 FEB 2019 |
| Name: CHRISTIAN BRIEN |               |                   |